



NAVAL AVIATION VISION  
2020



# SUMMARY

Naval Aviation is first and foremost about warfighting readiness and as such will continue to fulfill the enduring roles of the Navy and Marine Corps. We stand ready to contribute the full measure of our people, power, and technology to combat asymmetric, catastrophic, and disruptive threats and to defend the American homeland. The global security environment demands flexible warfighting strategies, such as FRP, and Naval Aviation will continue to manage its people and resources, providing the presence and unequivocal striking power that our national leadership demands and our country deserves.

The Naval Aviation Enterprise enables the achievement of a more effective and efficient warfighting force. Its process improvement and productivity initiatives exist to secure the future of Naval Aviation and will transform the way we conduct the business of warfighting, at sea and ashore. The NAE is the end of stovepipe management and the beginning of Enterprise-wide decision-making—a vital step toward realizing our future while maintaining the right level of readiness today.

U.S. Naval Aviation aircraft, weapons systems, and sensors are the best in the world, and they are operated and maintained by the smartest, most industrious, and dedicated people in the world. Our current and future technologies are on course to support the cornerstone strategies of Sea Power 21: FORCEnet, Sea Strike, Sea Shield, Sea Basing, Sea Warrior, Sea Trial, and Sea Enterprise. We will continue to develop new technologies while managing our costs, striking the delicate balance between today's readiness and tomorrow's capabilities, in the Joint environment.









# APPENDIX A:

## ACRONYMS & ABBREVIATIONS

<b>AARGM</b>	Advanced Anti-Radiation Guided Missile	<b>AMRAAM</b>	Advanced Medium-Range Air-to-Air Missile
<b>AAW</b>	Anti-Air Warfare	<b>AMS</b>	Airborne Mine Neutralization System
<b>ACE</b>	Aviation Combat Element	<b>AMTCS</b>	Aviation Maintenance Training Continuum System
<b>ACS</b>	Aerial Common Sensor	<b>AOR</b>	Area of Responsibility
<b>ACTD</b>	Advanced Concept Technology Demonstration	<b>APKWS</b>	Advanced Precision Kill Weapon System
<b>ADAR</b>	Air Deployable Active Receiver	<b>ARI</b>	Active-Reserve Integration
<b>AEA</b>	Airborne Electronic Attack	<b>ARM</b>	Anti-Radiation Missile
<b>AEER</b>	Advanced Extended Echo Ranging	<b>ASAT</b>	Anti-SATellite
<b>AEHF</b>	Advanced Extremely High Frequency	<b>ASN (RD&amp;A)</b>	Assistant Secretary of the Navy for Research, Development, and Acquisition
<b>AEW</b>	Airborne Early Warning	<b>ASUW</b>	Anti-Surface Warfare
<b>AFB</b>	Air Force Base	<b>ASW</b>	Anti-Submarine Warfare
<b>AGMS</b>	Air-to-Ground Missile System	<b>ATA</b>	Automatic Target Acquisition
<b>AESA</b>	Active Electronically Scanned Array	<b>ATDLS</b>	Advanced Tactical Data Link System
<b>AIP</b>	Anti-Surface Warfare Improvement Program	<b>ATFLIR</b>	Advanced Targeting Forward-Looking InfraRed
<b>ALFS</b>	Airborne Low Frequency Sonar	<b>ATRB</b>	Advanced Technical Review Board
<b>ALMDS</b>	Airborne Laser Mine Detection System	<b>AWACS</b>	Airborne Warning And Control System
<b>AMCM</b>	Airborne Mine Countermeasures	<b>BAMS</b>	Broad Area Maritime Surveillance
<b>AMP</b>	Avionics Modernization Program	<b>BDA</b>	Battle Damage Assessment
		<b>BGPHERS</b>	Battle Group Passive Horizon Extension System
		<b>BMD</b>	Ballistic Missile Defense
		<b>BOD</b>	Board of Directors
		<b>BVR</b>	Beyond Visual Range
		<b>C<sup>2</sup></b>	Command and Control
		<b>C<sup>4</sup>I</b>	Command, Control, Communications, Computers, and Intelligence





<b>C<sup>4</sup>ISR</b>	Command, Control, Communications, Computers, and Intelligence, Surveillance and Reconnaissance	<b>CSO</b>	Combat Systems Officer
<b>CAOC</b>	Combined Air Operations Command	<b>CV</b>	Hull designation for a conventionally-powered aircraft carrier
<b>CAS</b>	Close Air Support	<b>CVE</b>	Hull designation for a World War II “jeep carrier”
<b>CBN</b>	Chemical, Biological, and Nuclear Weapons,	<b>CVIC</b>	Carrier Intelligence Center
<b>CCG</b>	Computer Control Group	<b>CVN</b>	Hull designation for a nuclear-powered aircraft carrier
<b>CDL-N</b>	Common Data Link-Navy	<b>CVW</b>	Carrier Air Wing
<b>CDMR</b>	Compact Deployable Multistatic Receiver	<b>DARPA</b>	Defense Advanced Research Projects Agency
<b>CDMS</b>	Compact Deployable Multistatic Source	<b>DCGS-N</b>	Distributed Common Ground System-Navy
<b>CEC</b>	Cooperative Engagement Capability	<b>DCS</b>	Digital Communications System
<b>CEP</b>	Circular Error Probable	<b>DEAD</b>	Destruction of Enemy Air Defenses
<b>CFFC</b>	Commander, Fleet Forces Command	<b>DESRON</b>	Destroyer Squadron
<b>CFO</b>	Chief Financial Officer	<b>DEW</b>	Directed Energy Weapon
<b>CFT</b>	Cross Functional Team	<b>DII-COE</b>	Defense Information Infrastructure/ Common Operating Environment
<b>CG</b>	Hull designation for a guided-missile cruiser	<b>DLA</b>	Defense Logistics Agency
<b>CLF</b>	Combat Logistics Force	<b>DPSS</b>	Digital Precision Strike Suite
<b>CLS</b>	Contractor Logistics Support	<b>EAWS</b>	Enlisted Aviation Warfare Specialty
<b>CMC</b>	Commandant of the Marine Corps	<b>ECM</b>	Electronic CounterMeasures
<b>CMT</b>	Cost Management Team	<b>ECCM</b>	Electronic Counter-CounterMeasures
<b>CNAF</b>	Commander, Naval Air Forces	<b>EMALS</b>	Electro-Magnetic Aircraft Launch System
<b>CNAL</b>	Commander, Naval Air Force, U.S. Atlantic Fleet	<b>EO</b>	Electro-Optical
<b>CNATRA</b>	Chief of Naval Air Training	<b>EO/IR</b>	Electro-Optical/InfraRed
<b>CNO</b>	Chief of Naval Operations	<b>EOB</b>	Enemy Order of Battle
<b>CNR</b>	Chief of Naval Research	<b>ESG</b>	Expeditionary Strike Group
<b>COD</b>	Carrier Onboard Delivery	<b>ESM</b>	Electronic Support Measures
<b>COMNAVAIRSYSCOM</b>	Commander, Naval Air Systems Command	<b>EW</b>	Electronic Warfare
<b>COMPTUEX</b>	Composite Training Unit Exercise	<b>FARP</b>	Forward Arming and Refueling Point
<b>CONOPS</b>	Concept of Operations	<b>FBE</b>	Fleet Battle Experiment
<b>CRRC</b>	Chesapeake Regional Range Cooperative	<b>FFG</b>	Hull designation for a guided-missile fast frigate
<b>CSAR</b>	Combat Search And Rescue	<b>FLIR</b>	Forward-Looking InfraRed
<b>CSFTL</b>	Commander, Strike Force Training Atlantic	<b>FLTASWCOM</b>	Fleet Anti-Submarine Warfare Command
<b>CSFTP</b>	Commander, Strike Force Training Pacific	<b>FNC</b>	Future Naval Capabilities
<b>CSG</b>	Carrier Strike Group	<b>FRC</b>	Fleet Readiness Centers







<b>FRP</b>	Fleet Response Plan	<b>IP</b>	Internet Protocol
<b>FRTC</b>	Fallon Range Training Complex	<b>IPT</b>	Integrated Product Team
<b>FTI</b>	Fast Tactical Imagery	<b>IR</b>	InfraRed
<b>FY</b>	Fiscal Year	<b>ISR</b>	Intelligence, Surveillance, and Reconnaissance
<b>GIG</b>	Global Information Grid	<b>ISRT</b>	Intelligence, Surveillance, Reconnaissance, and Targeting
<b>GIG-ES</b>	Global Information Grid-Enterprise Services	<b>IUSS</b>	Integrated Undersea Surveillance System
<b>GP</b>	General Purpose	<b>JAN-TE</b>	Joint Airborne Network-Tactical Edge
<b>GPS</b>	Global Positioning System	<b>JDAM</b>	Joint Direct Attack Munition
<b>GWOT</b>	Global War on Terror	<b>JETI</b>	Jet Engine Test Instrumentation
<b>HARM</b>	High Speed Anti-Radiation Missile	<b>JFN</b>	Joint Fires Network
<b>HCS</b>	Human Capital Strategy	<b>JHMCS</b>	Joint Helmut Mounted Cueing System
<b>HDBT</b>	Hard and Deeply Buried Target	<b>JMOD</b>	Joint Signals Intelligence Avionics Family (JSAF) Block Modernization Program
<b>HEL</b>	High Energy Laser	<b>JMPS</b>	Joint Mission Planning System
<b>HLR</b>	Heavy Lift Replacement	<b>JSF</b>	Joint Strike Fighter
<b>HMMWV</b>	High Mobility Multipurpose Wheeled Vehicle	<b>JSIPS-N</b>	Joint Sensor Image Processing System-Navy
<b>HQMC</b>	Headquarters Marine Corps	<b>JSOW</b>	Joint Standoff Weapon
<b>HPM</b>	High-Power Microwave	<b>JTF</b>	Joint Task Force
<b>HS/H</b>	High Speed/Hypersonic	<b>JTFEX</b>	Joint Task Force Exercise
<b>HSI</b>	Human Systems Integration	<b>JTRS</b>	Joint Tactical Radio System
<b>HSW</b>	High Speed Weapon	<b>J-UCAS</b>	Joint-Unmanned Combat Air System
<b>IAC</b>	Integrated ASW Commander Course	<b>LSO</b>	Landing Signal Officer
<b>IADS</b>	Integrated Air Defense System	<b>LCAC</b>	Landing Craft, Air Cushioned
<b>ICAP III</b>	Improved Capability III	<b>LCS</b>	Littoral Combat Ship
<b>ICBM</b>	Inter-Continental Ballistic Missile	<b>LGB</b>	Laser-Guided Bomb
<b>IIR</b>	Imagery InfraRed	<b>LHA</b>	Hull designation for an amphibious assault ships
<b>IMC</b>	Integrated Maintenance Concept	<b>LHA(R)</b>	LHA Replacement
<b>IMINT</b>	Imagery Intelligence	<b>LTA</b>	Lighter Than Air
<b>INS</b>	Inertial Navigation System	<b>M&amp;S</b>	Modeling and Simulation
<b>IO</b>	Information Operations		
<b>IOC</b>	Initial Operational Capability		

<b>MARCENT</b>	Marine Forces Central Command	<b>NETC</b>	Naval Education and Training Command
<b>M/BVR</b>	Medium/Beyond Visual Range	<b>NETWARCOM</b>	Naval Network Warfare Command
<b>MAC</b>	Metal Augmented Charge	<b>N-PFPS</b>	Navy-Portable Flight Planning Software
<b>MAGTF</b>	Marine Air Ground Task Force	<b>NSAWC</b>	Naval Strike and Air Warfare Center
<b>MANPADS</b>	MAN-Portable Air Defense Systems	<b>NSW</b>	Naval Special Warfare
<b>MASINT</b>	Measurements and Signatures Intelligence	<b>NUFEA</b>	Navy Unique Fleet Essential Airlift
<b>MAW</b>	Marine Aircraft Wing	<b>NWDC</b>	Navy Warfare Development Command
<b>MAWTS</b>	Marine Aviation Weapons and Tactics Squadron	<b>OAMCM</b>	Organic Airborne Mine CounterMeasures
<b>MCAS</b>	Marine Corps Air Station	<b>OASIS</b>	Organic Airborne and Surface Influence System
<b>MCM</b>	Mine Countermeasures	<b>OEF</b>	Operation Enduring Freedom
<b>MEU</b>	Marine Expeditionary Unit	<b>OFP</b>	Operational Flight Program
<b>MIDS</b>	Multi-functional Information Distribution System	<b>OIF</b>	Operation Iraqi Freedom
<b>MIDS-JTRS</b>	MIDS-Joint Tactical Radio System	<b>OMFTS</b>	Operational Maneuver From The Sea
<b>MIDS-LVT</b>	MIDS-Low Volume Terminal	<b>ONR</b>	Office of Naval Research
<b>MITL</b>	Man-In-The-Loop	<b>OPAREA</b>	Operational Area
<b>MITT</b>	Maritime Integrated Tailored Training	<b>OPEVAL</b>	Operational Evaluation
<b>MIW</b>	Mine Interdiction Warfare	<b>OPNAV</b>	Office of the Chief of Naval Operations
<b>MMA</b>	Multi-Mission Maritime Aircraft	<b>OPTEMPO</b>	Operations Tempo
<b>MPA</b>	Maritime Patrol Aircraft	<b>OTH</b>	Over-The-Horizon
<b>MPF</b>	Maritime Pre-Positioning Force	<b>P<sup>3</sup>I</b>	Pre-Planned Product Improvement
<b>NAE</b>	Naval Aviation Enterprise	<b>PAA</b>	Primary Aircraft Authorized
<b>NAE BOD</b>	NAE Board of Directors	<b>PEO</b>	Program Executive Office
<b>NAI</b>	National Aerospace Initiative	<b>PMA</b>	Program Manager Air
<b>NAPT</b>	Naval Aviation Production Team	<b>POM</b>	Program Objective Memoranda
<b>NAS</b>	Naval Air Station	<b>PPBE</b>	Programming, Planning, and Budgeting Environment
<b>NAVAIR</b>	Naval Air Systems Command	<b>RAMICS</b>	Rapid Airborne Mine Clearance System
<b>NAVICP</b>	Naval Inventory Control Point	<b>RAMP</b>	Required Avionics Modernization Program
<b>NAVRIIP</b>	Naval Aviation Readiness Integrated Improvement Program	<b>RDT&amp;E</b>	Research, Development, Test, and Evaluation
<b>NAVSEA</b>	Naval Sea Systems Command	<b>RF</b>	Radio Frequency
<b>NAVSUP</b>	Naval Supply Systems Command	<b>RFI</b>	Ready For Issue
<b>NCDP</b>	Naval Capability Development Process	<b>RFT</b>	Ready For Tasking



**RIMPAC** RIM of the PACific  
**RMP** Radar Modernization Program  
**S&T** Science and Technology  
**SA** Situational Awareness  
**SAR** Synthetic Aperture Radar  
**SAR** Search And Rescue  
**SATCOM** Satellite Communication  
**SEAD** Suppression of Enemy Air Defenses  
**SFTI** Strike Fighter Tactics Instructor  
**SHARP** SHared Reconnaissance Pod  
**SIAP** Single Integrated Air Picture  
**SIGINT** Signals Intelligence  
**SIPRnet** Secret Internet PProtocol network  
**SLAM-ER** Standoff Land Attack Missile-Expanded Response  
**SLOC** Sea Lines of Communication  
**SN** Seaman  
**SOF** Special Operations Forces

**SPAWAR** Space and Naval Warfare Systems Command  
**SRT** Synthetic Radar Training  
**SSIP** Sensor System Improvement Program  
**SSN** Hull designation for an attack submarine  
**STAR21** Sea Warrior Training And Recruiting for Sea Power 21  
**STOL** Short TakeOff and Landing  
**STOM** Ship-to-Objective Maneuver  
**STOVL** Short TakeOff/Vertical Landing  
**SUW** Surface Warfare  
**SYSCOM** Systems Command  
**T&E** Testing and Evaluation  
**TACAIR** Tactical Air  
**TACTS** Tactical Aircrew Combat Training System  
**TAMD** Theater Air and Missile Defense  
**TAMPS** Tactical Automated Mission Planning System  
**TARPS** Tactical Airborne Reconnaissance Pod System





<b>TBMD/CMD</b>	Theater Ballistic Missile Defense /Cruise Missile Defense	<b>USMC</b>	United States Marine Corps
<b>TCS</b>	Tactical Control System	<b>USN</b>	United States Navy
<b>TCT</b>	Time Critical Targeting	<b>USSTRATCOM</b>	U.S. Strategic Command
<b>TDM</b>	Tactical Dissemination Module	<b>VAATE</b>	Versatile Affordable Advanced Turbine Engine
<b>TLAM</b>	Tomahawk Land Attack Missile	<b>VERTREP</b>	Vertical Replenishment
<b>T/M/S</b>	Type/Model/Series	<b>VLF</b>	Very Low Frequency
<b>TOC</b>	Theory of Constraints	<b>VOD</b>	Vertical Onboard Delivery
<b>TOW</b>	Tube-Launched, Optically-Tracked, Wire-Guided Missile System	<b>VS</b>	Virtual SYSCOM
<b>TRS</b>	Training Range Strategy	<b>V/STOL</b>	Vertical/Short TakeOff and Landing
<b>TSPI</b>	Time Space Position Information	<b>VTOL</b>	Vertical TakeOff and Landing
<b>TSS</b>	Time Sensitive Strike	<b>VTUAV</b>	Vertical Takeoff and Landing Tactical UAV
<b>TTP</b>	Tactics, Techniques, and Procedures	<b>VUAV</b>	Vertical Takeoff and Landing UAV
<b>TYCOM</b>	Type Commander	<b>WIA</b>	Weapon Impact Assessment
<b>UAV</b>	Unmanned Aerial Vehicle	<b>WIP</b>	Work-In-Progress
<b>UCAV</b>	Unmanned Combat Air Vehicle	<b>WMD</b>	Weapon of Mass Destruction
<b>USAF</b>	United States Air Force	<b>WRC</b>	Warfighter Response Center





# APPENDIX B: IMAGE CREDITS

Original 3D models of aircraft, *CVN 21*-class, and weapons provided by:  
Bell Helicopter, Boeing, Lockheed Martin, Northrop Grumman, Raytheon, and Sikorsky.

Model enhancements by Chris Jantsch.

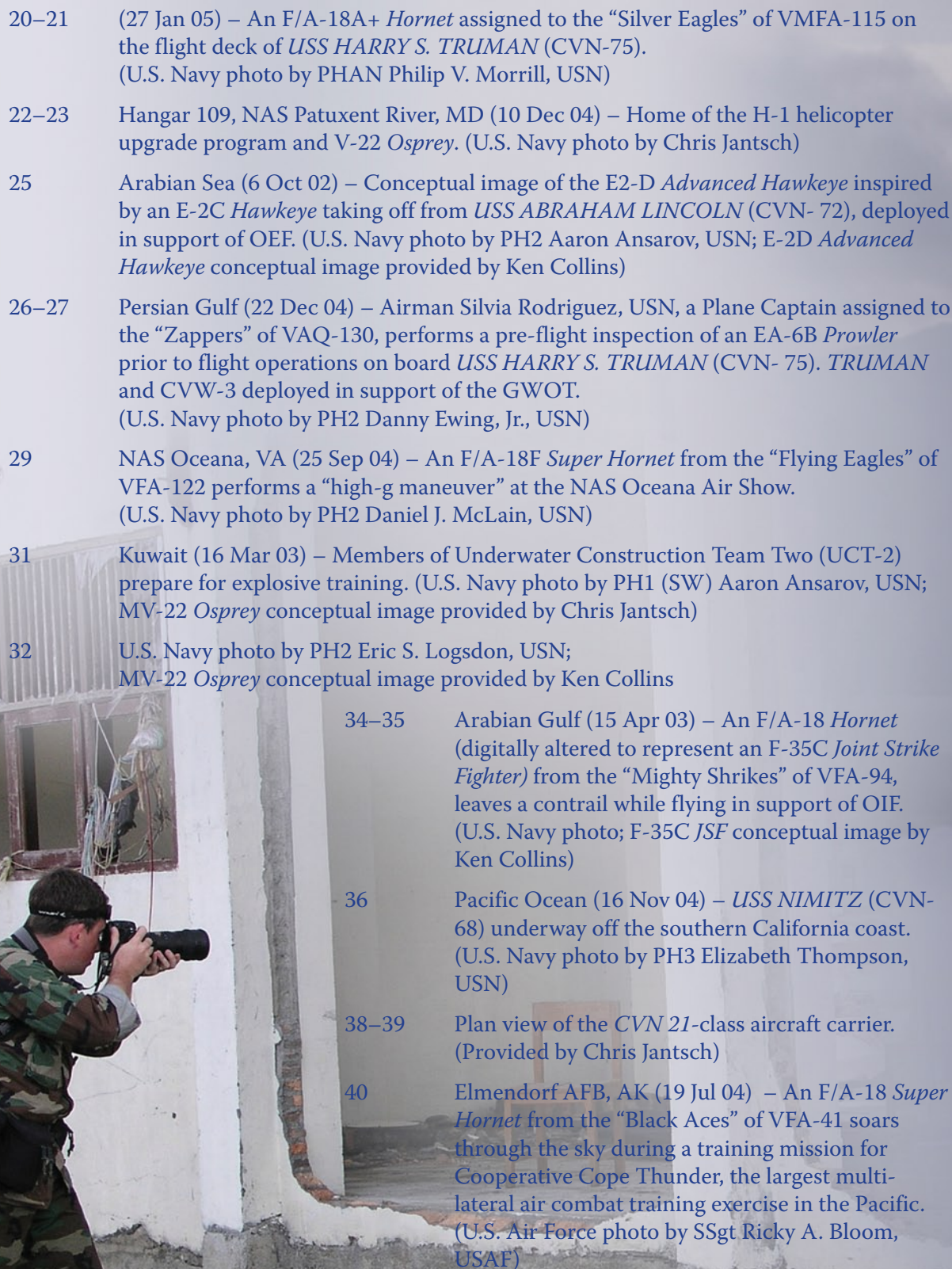
- iii Atlantic Ocean (18 Jul 04) – *USS HARRY S. TRUMAN* (CVN-75) participates in exercise Majestic Eagle off the coast of Morocco. (U.S. Navy photo by PHAN Ryan O'Connor, USN; conceptual images by Ken Collins)
- iv Pacific Ocean (25 Jun 04) – An F/A-18E *Super Hornet* piloted by CAPT Scott Swift, USN, Commander, Carrier Air Wing Fourteen (CVW-14), launches from the deck of *USS JOHN C. STENNIS* (CVN-74). This was CAG Swift's final flight as Air Wing Commander, courtesy of the VFA-115 "Eagles." (U.S. Navy photo by PH2 Jayme Pastoric, USN)
- vii (2004) – An AV-8B *Harrier* from the "Flying Nightmares" of VMA-513 (Detachment A), launched from *USS PELELIU* (LHA-5), receives fuel from a VFA-41 "Black Aces" F/A-18F *Super Hornet*. (U.S. Marine Corps photo by Major John A. "Bull" Rahe, USMC)
- viii–ix Island of Sumatra, Indonesia (12 Jan 05) – An MH-60S *Knighthawk* helicopter, assigned to the "Gunbearers" of HC-11 (Detachment Two), idles on a provincial road outside Banda Aceh while aircrew pass out relief supplies after Southeast Asia's devastating tsunami. (U.S. Navy photo by PH3 M. Jeremie Yoder, USN)
- 1 Composite photo created by Ken Collins:
  - Island of Sumatra, Indonesia (10 Jan 05) – Landing Craft, Air Cushioned (LCAC) vehicles attached to *USS BONHOMME RICHARD* (LHD-6) and Expeditionary Strike Group FIVE (ESG-5) deliver supplies to the people of Meulobah. (DoD photo by PH1 Bart A. Bauer, USN)
  - Everett Naval Base, Washington (4 Mar 05) – The national ensign flies from the stern of *USS ABRAHAM LINCOLN* (CVN-72) upon its return from a surge deployment to the Western Pacific Ocean. *LINCOLN* and Carrier Air Wing TWO contributed over 5 million pounds of supplies to the island of Sumatra, Indonesia as part of Operation Unified Assistance. (U.S. Navy photo by PH3 James R. McGury, USN)
  - In the skies over Iraq, a KC-10 from the 908th Expeditionary Air Refueling Squadron refuels two F/A-18 *Hornets* from the "Rampagers" of VFA-83, during OIF. (U.S. Air Force photo by TSgt Erik Gudmundson, USAF)
  - (26 Feb 04) Expeditionary Strike Group Two (ESG-2), comprised of *USS WASP* (LHD-1) with the 22nd Marine Expeditionary Unit (MEU) embarked, *USS LEYTE GULF* (CG-55), *USS YORKTOWN* (CG-48), *USS SHREVEPORT* (LPD-12), *USS WHIDBEY ISLAND* (LSD-41), *USS MCFAUL* (DDG-4), and *USS CONNECTICUT* (SSN-22) deploy in support of the Global War on Terror (GWOT). (USN photo by PH3 David K. Simmons, USN)
  - Arabian Gulf (17 Nov 04) – An aircraft director stands ready to receive an F-14 *Tomcat* on catapult #3 of the *USS JOHN F. KENNEDY* (CV-67). The *KENNEDY* Carrier Strike Group was supporting ground troops in Fallujah, Iraq during Operation Al Fajr (New Dawn). (U.S. Navy photo by PH2 (NAO/SW/AW) Michael Sandberg, USN)



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- 2–3 Persian Gulf (15 Jan 05) – *USNS SATURN* (T-AFS 10) conducts Vertical Replenishment (VERTREP) with *USS HARRY S. TRUMAN* (CVN-75) and *USS MONTEREY* (CG-61) assigned to Carrier Strike Group TEN (CSG-10), deployed in support of the GWOT. (U.S. Navy photo by PH1 Richard J. Brunson, USN)
- 5 Indian Ocean (24 Sep 04) – Inside the Intelligence Center on board *USS JOHN C. STENNIS* (CVN-74), IS2 Damon Jenkins, USN, reviews reconnaissance imagery provided by the “Tomcatters” of VF-31, photographed during their final TARPS mission. (U.S. Navy photo by PH3 Mark J. Rebilas, USN)
- 6–7 (27 Nov 04) – The Honorable Gordon R. England, Secretary of the Navy, talks to Marines from the “Red Dragons” of HMM-268 during a visit to Camp Taqaddum, Iraq. (U.S. Marine Corps photo by SSgt Jim Goodwin, USMC)
- 8–9 Top right: The “Philippine Mars” Martin JRM-1 patrol bomber. Bottom right: A K-class non-rigid airship. Bottom: A CVE “jeep carrier.” (U.S. Navy photos from the Patuxent River Naval Aviation Museum archives)
- 10–11 (27 Jan 03) – An AV-8B *Harrier* launches from the *USS BONHOMME RICHARD* (LHD-6), part of the seven-ship Amphibious Task Force West (ATF-W) deployed in support of OEF. (U.S. Navy photo by PH2 Jennifer Swader, USN)
- 12–13 Pacific Ocean (21 Oct 04) – An HH-60H *Seahawk*, assigned to the “Black Knights” of HS-4, conducts a simulated Search And Rescue (SAR) mission alongside *USS JOHN C. STENNIS* (CVN-74), on its way home from a forward deployment with CVW-14. (U.S. Navy photo by PH3 Mark J. Rebilas, USN)
- 14–15 (10 Oct 02) In support of OEF, U.S. Army Special Forces and U.S. Navy SEALs parachute from an MH-53E *Sea Dragon* helicopter assigned to the “Vanguards” of HM-14. (U.S. Navy photo by PH2 (SW) Michael Sandberg, USN)
- 16–17 Western Pacific Ocean (7 Aug 04) – Sailors observe a rendezvous between the *USS KITTY HAWK* (CV-63) and *USS JOHN C. STENNIS* (CVN-74) Carrier Strike Groups during Summer Pulse 2004. (U.S. Navy photo by PHAN Bo J. Flannigan, USN)
- 18–19 (26 Jan 05) – LT David Dequeljoe, USN, a Landing Signal Officer (LSO) assigned to the “Swordsmen” of VF-32, watches the approach of a VS-22 “Checkmate” S-3B *Viking*, recovering on board *USS HARRY S. TRUMAN* (CVN-75). (U.S. Navy photo by PHAN Kristopher Wilson, USN)


PHAN Philip V. Morrill, USN



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- 20–21 (27 Jan 05) – An F/A-18A+ *Hornet* assigned to the “Silver Eagles” of VMFA-115 on the flight deck of *USS HARRY S. TRUMAN* (CVN-75). (U.S. Navy photo by PHAN Philip V. Morrill, USN)
- 22–23 Hangar 109, NAS Patuxent River, MD (10 Dec 04) – Home of the H-1 helicopter upgrade program and V-22 *Osprey*. (U.S. Navy photo by Chris Jantsch)
- 25 Arabian Sea (6 Oct 02) – Conceptual image of the E2-D *Advanced Hawkeye* inspired by an E-2C *Hawkeye* taking off from *USS ABRAHAM LINCOLN* (CVN- 72), deployed in support of OEF. (U.S. Navy photo by PH2 Aaron Ansarov, USN; E-2D *Advanced Hawkeye* conceptual image provided by Ken Collins)
- 26–27 Persian Gulf (22 Dec 04) – Airman Silvia Rodriguez, USN, a Plane Captain assigned to the “Zappers” of VAQ-130, performs a pre-flight inspection of an EA-6B *Prowler* prior to flight operations on board *USS HARRY S. TRUMAN* (CVN- 75). *TRUMAN* and CVW-3 deployed in support of the GWOT. (U.S. Navy photo by PH2 Danny Ewing, Jr., USN)
- 29 NAS Oceana, VA (25 Sep 04) – An F/A-18F *Super Hornet* from the “Flying Eagles” of VFA-122 performs a “high-g maneuver” at the NAS Oceana Air Show. (U.S. Navy photo by PH2 Daniel J. McLain, USN)
- 31 Kuwait (16 Mar 03) – Members of Underwater Construction Team Two (UCT-2) prepare for explosive training. (U.S. Navy photo by PH1 (SW) Aaron Ansarov, USN; MV-22 *Osprey* conceptual image provided by Chris Jantsch)
- 32 U.S. Navy photo by PH2 Eric S. Logsdon, USN; MV-22 *Osprey* conceptual image provided by Ken Collins
- 34–35 Arabian Gulf (15 Apr 03) – An F/A-18 *Hornet* (digitally altered to represent an F-35C *Joint Strike Fighter*) from the “Mighty Shrikes” of VFA-94, leaves a contrail while flying in support of OIF. (U.S. Navy photo; F-35C *JSF* conceptual image by Ken Collins)
- 36 Pacific Ocean (16 Nov 04) – *USS NIMITZ* (CVN-68) underway off the southern California coast. (U.S. Navy photo by PH3 Elizabeth Thompson, USN)
- 38–39 Plan view of the CVN 21-class aircraft carrier. (Provided by Chris Jantsch)
- 40 Elmendorf AFB, AK (19 Jul 04) – An F/A-18 *Super Hornet* from the “Black Aces” of VFA-41 soars through the sky during a training mission for Cooperative Cope Thunder, the largest multi-lateral air combat training exercise in the Pacific. (U.S. Air Force photo by SSgt Ricky A. Bloom, USAF)

PH1 (AW) Bart A. Bauer, USN





PH2 Eric S. Logsdon, USN

- 42–43 Fallujah, Iraq (9 Nov 04) -- Operation Al Fajr (New Dawn), involving the 1st Marine Division, eradicates enemy forces in the city of Fallujah, as part of security and stabilization operations in the Al Anbar province. (U.S. Marine Corps photo by LCpl Joel A. Chaverri, USMC; “J-UCAS strike” conceptual image by Ken Collins)
- 44 Yuma, Arizona (2004) - An AH-1Z *Super Cobra* releases flares during weapons testing over Yuma Proving Grounds.  
(Photo by Yuma Proving Grounds Imaging Department)
- 46–47 NAS Patuxent River, MD (10 Dec 04) – An E-6B *Mercury* from the VQ-4 “Shadows” takes off from NAS Pax River. (U.S. Navy photo by Chris Jantsch)
- 48–49 NAS Patuxent River, MD (2 Dec 03) – An SH-3 *Sea King* carrying the Chief of Naval Operations arrives at NAS Pax River. (U.S. Navy photo)
- 50–51 Kandahar, Afghanistan (30 Oct 04) – P-3C *Orion* aircraft of the VP-9 “Golden Eagles.” (U.S. Navy photo by LCDR David M. Scott, USN)
- 53 NAS Patuxent River, MD (30 Mar 05) – An MH-60R *Seahawk* helicopter from the “Pioneers” of Air Test and Evaluation Squadron ONE (VX-1), hovers above the Chesapeake Bay. (U.S. Navy photo by Chris Jantsch)
- 54–55 (29 Mar 03) – *USNS MOUNT BAKER* (T-AE 34) conducts VERTREP alongside *USS HARRY S. TRUMAN* (CVN-75) during a six-month deployment in support of OIF. (U.S. Navy 15-shot photo layout by PH3 (AW/SW/NAC) Christopher B. Stoltz, USN)
- 56 (28 Oct 02) – The sixth C-40A *Clipper* is delivered to the U.S. Naval Reserves in Wichita, KS. It was later assigned to VR-58 in Jacksonville, FL.  
(Photo provided by The Boeing Company)
- 58–59 NAS Patuxent River, MD (3 Dec 03) – A VC-20D *Gulfstream IV* aircraft on approach to NAS Pax River. (U.S. Navy photo by Chris Jantsch)



- 60–61 NAS North Island, CA (9 Nov 02) – A C-130T *Hercules* Logistics Support Aircraft from the VR-54 “Revelers” taxis to the runway. (U.S. Navy photo by Chris Jantsch)
- 62–63 Southern California (5 May 04) – A section of E-2C *Hawkeyes* from the “Black Eagles” of VAW-113 and the “Sun Kings” of VAW-116, flies off the coast of Southern California. (U.S. Navy photo by JO2 Thomas Peterson, USN; E2-D *Advanced Hawkeye* conceptual image by Ken Collins)
- 64–65 FORCEnet illustration by Ken Collins, Chris Jantsch, and Greg Makrakis.
- 68–69 Central Iraq – The wideband satellite and UHF antenna farm of the 123rd Signal Battalion, 3rd Infantry Division. (U.S. Army photo by SGT Igor Paustovski, USA)
- 70 NAS Patuxent River, MD (1 Oct 04) – A T-6A *Texan II* from Training Air Wing Six “holds short,” waiting for takeoff clearance. (U.S. Navy photo by Chris Jantsch)
- 72–73 Mediterranean Sea (30 Mar 03) – Aviation Ordnancemen move Laser-Guided Bombs (LGBs) from an elevator on board *USS THEODORE ROOSEVELT* (CVN-71). *ROOSEVELT* and CVW-8 were conducting missions in support of OIF. (U.S. Navy photo by PHAR Chris Thamann, USN; image composite by Chris Jantsch)
- 74–75 Fallujah, Iraq – A precision air strike destroys an insurgent stronghold, helping 3rd Battalion, 1st Marines, 1st Marine Division move through the city of Fallujah during Operation Al Fajr (New Dawn). (U.S. Marine Corps photo by LCpl Thomas D. Hudzinski, USMC)
- 76–77 Central Command AOR – An F/A-18C *Hornet* assigned to the “Gunslingers” of VFA-105, during OIF. (U.S. Navy photo by CDR Tom “Walli” Lalor, USN)
- 78–79 Persian Gulf (3 Dec 04) – An E-2C *Hawkeye* assigned to the *Seahawks* of VAW-126 launches from the flight deck of *USS HARRY S. TRUMAN* (CVN-75). *TRUMAN* and CVW-3 conducted ISR and CAS missions over Iraq. (U.S. Navy photo by PHAA Ricardo J. Reyes, USN)
- 80–81 Tallil Air Base, Iraq (7 May 03) – Lance Corporal John Ideus, USMC from Marine Wing Support Squadron (MWSS)-371 stands by to ground and fuel an AH-1 *Cobra* helicopter at a Forward Area and Refueling Point (FARP) during OIF. (U.S. Air Force photo by SSgt Shane A. Cuomo, USAF)
- 82–83 Indian Ocean (20 Sep 04) – CDR George Slook, USN, Executive Officer of the VFA-113 “Stingers,” launches an AIM-9 *Sidewinder* missile from an F/A-18 *Hornet* during an underway missile exercise. VFA-113 is assigned to CVW-14, embarked on *USS JOHN C. STENNIS* (CVN-74). (U.S. Navy photo by PH3 Mark J. Rebilas, USN)
- 84–85 (10 Nov 02) – An MD-3 tow tractor moves a VFA-14 F/A-18E *Super Hornet*. The “Tophatters” are embarked on board *USS NIMITZ* (CVN-68). (U.S. Navy photo by Chris Jantsch)
- 86–87 San Diego, CA (14 Aug 02) – On the fantail of *USS NIMITZ* (CVN-68), an F404 engine used to power the F/A-18 *Hornet* is taken to full afterburner using the new Jet Engine Test Instrumentation (JETI) system. (U.S. Navy photo by PHAN Sara Bohannon, USN)
- 88–89 Al Asad, Iraq (17 Dec 04) – Two CH-53 *Sea Stallion* medium lift helicopters return from conducting a weapons shoot during the visit of LtGen Wallace C. Gregson, USMC, Commander, U.S. Marine Forces Central Command (MARCENT). (U.S. Marine Corps photo by Cpl Jessica L. Richards, USMC)



- 90–91 Pacific Ocean (28 Jun 04) – *USS TARAWA* (LHA-1) approaches Pearl Harbor, HI to participate in exercise RIMPAC 2004. (U.S. Navy photo by PH2 Richard J. Brunson, USN)
- 92–93 Photo of the Himalayan Mountain range taken from the space shuttle *Columbia*. (J-UCAS image composition by Ken Collins)
- 94–95 Mediterranean Sea (4 Jan 05) – LTJG Brooke O’Brien, USN, copilots a P-3C *Orion* assigned to the “Mad Foxes” of VP-5, during a scheduled deployment in support of the GWOT. (U.S. Navy photo by PH3 Jesse L. Paquin, USN)
- 96–97 Arabian Gulf – The “Blackhawks” of HM-15 retrieve the AN/AQS-14A Side-Looking Sonar used to detect underwater mines and analyze mine warfare data. (U.S. Navy photo by PH2 Christopher Mobley, USN)
- 98–99 U.S. Navy photo by Randy Hepp.
- 100–101 NAS Patuxent River, MD (4 Aug 04) – A pair of MV-22 *Ospreys* on the ramp at NAS Pax River. (U.S. Navy photo by Chris Jantsch; image composition by Ken Collins)
- 102–103 Near Camp Taqaddum, Iraq (25 May 04) – SSgt Mark J. Covill, USMC, attached to the “Coyotes” of HMLA-775, surveys the area around a farm from his UH-1N *Huey* helicopter. (U.S. Marine Corps photo by LCpl Samuel Bard Valliere, USMC)

- 105 Atlantic Ocean (29 Sep 03) – An Aviation Boatswain’s Mate, enveloped by steam from the catapults of *USS RONALD REAGAN* (CVN-76), signals for an aircraft to taxi into position during CVW-17 carrier qualifications. (U.S. Navy photo by PH2 Chad McNeeley, USN)
- 106–107 South China Sea (31 Aug 04) – Aviation Ordnancemen carefully guide a skid loaded with ammunition through the hangar bay of *USS JOHN C. STENNIS* (CVN-74). (U.S. Navy photo by PH3 Mark J. Rebilas, USN)

PH3 Craig R. Spiering, USN



- 109 Arabian Sea – Sailors from the Air Department of *USS ABRAHAM LINCOLN* (CVN-72) pose for an advertising campaign concept, entitled “Check out our new fall colors.” Pictured are: AN Mardi Ros (blue shirt), ABHAN Lavar Jones (red shirt), ABE2 Michelle Brown (green shirt), ABH3 (EAWS) Shawn Riley (purple shirt), and AN George Pena (yellow shirt). (U.S. Navy photo and layout concept by PH2 Aaron Ansarov, USN, and PH3 Jennifer Nichols, USN)
- 110 Persian Gulf (11 Jan 05) – LT James Keating, USN, gives a thumbs-up to a catapult operator from the flight deck of *USS HARRY S. TRUMAN* (CVN-75). (U.S. Navy photo by PH3 Craig R. Spiering, USN)
- 112–113 MCAS Miramar, CA (24 Sep 04) – An MV-22 *Osprey* from VMX-22, stationed at MCAS New River, NC, approaches MCAS Miramar, CA. (U.S. Marine Corps photo by Sgt J.L. Zimmer III, USMC)
- 114–115 NAS Key West, FL (7 Jan 05) – Pilots assigned to the “Saints” of VFC-13, preflight their F-5E/F *Tiger* adversary aircraft. (U.S. Navy photo by JO1 Trice Denny, USN).
- 116–117 Sigonella, Sicily (12 Jan 05) – A maintenance crew changes the number two engine propeller of a P-3C *Orion* attached to the VP-5 “Mad Foxes,” deployed to NAS Sigonella. (U.S. Navy photo by PH3 Jesse L. Paquin, USN)
- 118–119 Arabian Sea – An aircrewman from the HS-4 “Black Knights” walks to his aircraft in preparation for a night training mission, launching from *USS ABRAHAM LINCOLN* (CVN-72). (U.S. Navy photo by PH2 Aaron Ansarov, USN)
- 120–121 Dam Neck, VA (5 Dec 02) – SN Vanessa Rutter, USN, a student at the Navy and Marine Corps Intelligence Training Center (NMITC). (U.S. Navy photo by PHC Chris Desmond, USN)
- 122 (2004) – Major John A. “Bull” Rahe, USMC, launches from *USS PELELIU* (LHA-5) in a VMA-513 “Flying Nightmares” AV-8B *Harrier*. (U.S. Marine Corps photo by VMA-513)
- 124 Yokosuka, Japan (2 Nov 04) – AW2 Jimmy Robinson, USN, assigned to the “Chargers” of HS-14, scans the horizon during a routine training flight over Tokyo Bay. HS-14 is part of CVW-5, embarked in *USS KITTY HAWK* (CV-63). (U.S. Navy photo by PH2 William H. Ramsey, USN)
- 126–127 North Atlantic Ocean (12 Jul 04) – *USS HARRY S. TRUMAN* (CVN-75) participates in Majestic Eagle, a multi-national exercise involving U.S., allied, and coalition naval forces. (U.S. Navy photo by PHAN Ryan O’Connor, USN)



PH2 (AW) Richard J. Brunson, USN



- 128–129 (22 May 04) – A pilot from the “Diamondbacks” of VFA-102 greets his family upon returning from a three-month deployment with CVW-5, embarked in *USS KITTY HAWK* (CV-63). (U.S. Navy photo by PH1(SW) Aaron Ansarov, USN)
- 130 U.S. Navy photo by PH2 Eric S. Logsdon, USN; image editing by Ken Collins
- 132–133 Fallujah, Iraq (15 Nov 04) – A CH-53E *Super Stallion* helicopter from the “Flying Tigers” of HMH-361, rests among rocky terrain near border Fort Number 21 in support of Operation Al Fajr (New Dawn). (U.S. Marine Corps photo by Cpl Christopher R. Rye, USMC; MV-22 conceptual image by Ken Collins.)
- 135 PHAN Philip V. Morrill, USN, visualizes a “shot” on board *USS HARRY S. TRUMAN* (CVN-75). (U.S. Navy photo by PHAN Ricardo J. Reyes, USN)
- 136 Meulobah, Indonesia – PH1 (AW) Bart A. Bauer, USN, photographs Cpl Anthony Gray, USMC, a Marine Corps radio operator, during tsunami relief operations in Southeast Asia. (U.S. Navy photo by PHC (SW/NAC) Jerry Woller, USN)
- 137 Kodiak, AK (16 Dec 03) – PH2 Eric S. Logsdon, USN, observes SEAL (SEa, Air, Land) advanced cold weather training. (U.S. Navy photo by PH2 Eric S. Logsdon, USN)
- 139 PH3 Craig R. Spiering, USN, photographs an F/A-18C *Hornet* from the “Raging Bulls” of VFA-37, as it launches from *USS HARRY S. TRUMAN* (CVN-75). (U.S. Navy photo by PHAN Ryan O’Connor, USN)
- 140 (16 Oct 03) – PH2 (AW) Richard J. Brunson, USN, riding in the back of a High Mobility Multipurpose Wheeled Vehicle (HMMWV), takes a break from documenting OIF humanitarian operations. (U.S. Navy photo by PH1 Ted Banks, USN)
- 141 PH1 Ted Banks, USN, holds a Russian-made 81mm mortar, discovered while working with Marine Corps Explosive Ordnance Disposal (EOD) technicians in Iraq. (U.S. Navy photo by PH1 Ted Banks, USN)
- 142 Arabian Sea/Persian Gulf (26 Jan 05) – CDR William Leninger, USN, Commander, Fleet Surgical Team Nine (FST 9), watches as *USS BONHOMME RICHARD* (LHD-6) enters the Persian Gulf in support of the GWOT. (U.S. Navy photo by JOC Walter T. Ham IV, USN)
- 144–145 Image composite created by Ken Collins from original U.S. Navy photographs.

PH1 Ted Banks, USN







# NAVAL AVIATION VISION 2020

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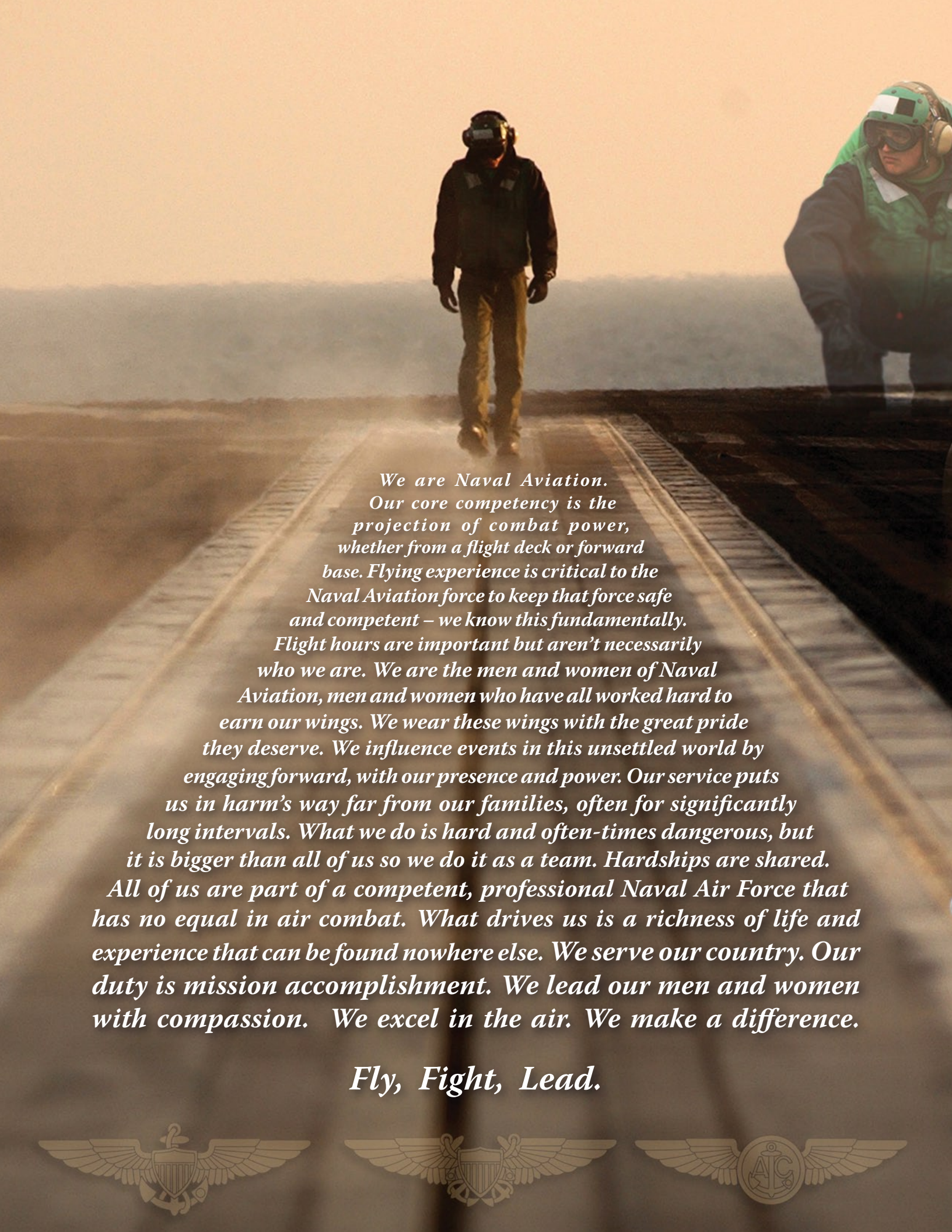
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*We are Naval Aviation.  
Our core competency is the  
projection of combat power,  
whether from a flight deck or forward  
base. Flying experience is critical to the  
Naval Aviation force to keep that force safe  
and competent – we know this fundamentally.  
Flight hours are important but aren't necessarily  
who we are. We are the men and women of Naval  
Aviation, men and women who have all worked hard to  
earn our wings. We wear these wings with the great pride  
they deserve. We influence events in this unsettled world by  
engaging forward, with our presence and power. Our service puts  
us in harm's way far from our families, often for significantly  
long intervals. What we do is hard and often-times dangerous, but  
it is bigger than all of us so we do it as a team. Hardships are shared.  
All of us are part of a competent, professional Naval Air Force that  
has no equal in air combat. What drives us is a richness of life and  
experience that can be found nowhere else. We serve our country. Our  
duty is mission accomplishment. We lead our men and women  
with compassion. We excel in the air. We make a difference.*

*Fly, Fight, Lead.*











## NAVAL AVIATION ENTERPRISE LEADERSHIP

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